

## Abstract

This thesis investigates the impact of low fertility rates on economic growth in South Korea, a country recognized for having one of the lowest fertility rates in the world. The study explores the negative relationship between low fertility and economic growth, particularly through its effects on resource allocation and investment in human capital. The significance of this research extends beyond South Korea, as many other nations are also grappling with similar low fertility trends. By focusing on South Korea, this thesis aims to provide a deeper understanding of how declining fertility rates can influence economic growth, offering insights that are relevant to other nations.

Given the importance of the Solow growth model in understanding economic growth, we build on this model and incorporate real-world phenomena to develop a regression model that explains the relationship between economic growth and fertility rates, incorporating various other relevant variables. Using panel data from 2000 to 2021 across 16 regions, this study includes control variables such as population density, education, women's workforce participation rate, research and development expenditure, inflation, unemployment, and urbanization. The findings reveal that fertility rates are a significant factor in driving economic growth across these regions, while population growth is found to be insignificant. This research should help policymakers in managing population density and increasing investment in research and development to enhance economic growth in South Korea.

**JEL Classification** F12, F21, F23, H25, H71, H87

**Keywords** Fertility Rates, Economic Growth, Solow Growth Model, South Korea

**Title** The Impact of Low Fertility Rate on Economic Growth in South Korea